

COKER et al
Appl. No. 09/868,241
March 1, 2004

AMENDMENTS TO THE CLAIMS:

Please amend claims 1, 2, 12, 13 and 14 as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (*Currently Amended*) Light modulating apparatus comprising:
an array of light modulating pixels; and
~~drived~~driving means adapted to drive the array to write a complete image by a weighted bit plane technique in response to an image signal representing a set of n-digit binary numbers defining the intended intensities of respective pixels of the array, n being an integer greater than one, wherein the pixels are liquid crystal pixels, and the driving means is arranged to alter a first~~the~~ n-digit number in respect of at least one said pixel to a different n-digit number having a closely adjacent value so that the numbers of 1s and 0s written thereat over said writing of a complete image are brought closer to equality thereby improving the dc balance.

2. (*Currently Amended*) Light modulating apparatus comprising:
an array of light modulating pixels; and
~~drived~~driving means adapted to drive the array to write a complete image by a weighted bit plane technique in response to an image signal representing a set of n-digit binary numbers defining the intended intensities of respective pixels of the array, n being

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an integer greater than one, wherein the pixels are liquid crystal pixels, and over a plurality of successive complete images the driving means is arranged to alter a first the n-digit number in respect of at least one said pixel in at least one said complete image to a different n-digit number having a closely adjacent value so that the numbers of 1s and 0s written at said at least one said pixel over the plurality of images are brought closer to equality thereby improving the dc balance.

3. *(Original)* Display apparatus according to claim 2 wherein said driving means is arranged so that values of said number over said plurality of images provide an average intensity at said at least one pixel substantially equal to the intended intensity.

4. *(Cancelled)*

5. *(Previously Presented)* Display apparatus according to one of claims 1-3, wherein said driving means is arranged so that said numbers of 1s and 0s written at said at least one said pixel are brought to equality.

6. *(Previously Presented)* Display apparatus according to one of claims 1-3 wherein said driving means includes a look-up table for determining how said at least one number is to be altered.

7. *(Cancelled)*

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8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) A method of image signal processing for a weighted bit plane technique, in which an image signal ~~represents~~comprises a set of n-digit binary number signals each indicative of the intended intensity level of a respective one of a corresponding array of binary pixels, wherein at least one of said binary number signals has an inequality of 1s and 0s, wherein said method comprises the step of altering said at least one n-digit binary number to a different n-digit number having a closely adjacent value ~~to at least reduce~~thereby reducing said inequality in 1s and 0s in said at least one n-digit binary number signal and reducing any inequality over said set of n-digit binary number signals~~therein and so that any inequality of 1s and 0s in each of the rest of said set of numbers is left unchanged, reduced or removed.~~

13. (Currently Amended) A method of writing and displaying an image in response to an image signal ~~representing~~comprised of a set of n-digit binary numbers each indicative of the intended intensity level of a respective one of a corresponding array of binary pixels, a complete image being written using a weighted bit plane technique, the method comprising the step that at least one of said n-digit binary numbers is altered to a

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different n-digit binary number having a closely adjacent value such that over the writing of said complete image ~~any~~ inequality of 1s and 0s at the corresponding pixel is at least reduced and so that any inequality of 1s and 0s at pixels for each of the rest of the said set of numbers is left unchanged, reduced or removed.

14. *(Currently Amended)* A method of writing and displaying an image in response to an image signal representingcomprised of a set of n-digit binary numbers each indicative of the intended intensity level of a respective one of a corresponding array of binary pixels, using a weighted bit plane technique, wherein at least onesaid set of binary numbers produces an inequality of 1s and 0s at its pixel over the writing of a complete image, wherein said method comprises the steps of:

writing a plurality of images each approximating said complete image in succession; and

altering said at least one n-digit binary number to a different n-digit binary number having a closely adjacent value, in at least one of said plurality of images, so that over said succession ~~the said~~any inequality of 1s and 0s is at least reduced at one pixel and any inequality of 1s and 0s at each of the other pixels is ~~left unchanged, reduced or removed~~not increased.

15. *(Original)* A method according to claim 13 or claim 14 wherein at least one bit plane is refreshed during the writing of a said complete image.